



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,047	01/12/2005	Stig Frohlund	9342-37	6651
20792	7590	12/19/2005	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC PO BOX 37428 RALEIGH, NC 27627			SANTIAGO CORDERO, MARIVELISSE	
			ART UNIT	PAPER NUMBER
			2687	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/521,047

Applicant(s)

FROHLUND ET AL.

Examiner

Marivelisse Santiago-Cordero

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

1. Claims 1-10 are pending in the application.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

3. The references cited in the Information Disclosure Statement (IDS) filed on 1/12/2005 have been considered. However, the US Publication Number cited is incorrect. The correct reference number is cited in attached form PTO-892.

#### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "52" and "53" (Fig. 3). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing-sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Specification*

5. The use of the trademark BLUETOOTH has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology (see page 9, line 19 and page 10, line 32).

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

6. The disclosure is objected to because of the following informalities: the term “organisers” (page 5, line 13) should be replaced with --organizers--; the term “stylus 72” (page 8, lines 38-39) should be replaced with --stylus 73--; the term “realise” (page 12, line 28) should be replaced with --realize--.

Appropriate correction is required.

*Claim Objections*

7. Claims 1-10 are objected to because of the following informalities: the term “PCB” is an acronym which can mean different things and/or change in meaning overtime, hence, it would be desirable to write down the actual words to which the acronym refers. Appropriate correction is required.

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews (WO 97/44912) in view of Greenway et al. (hereinafter "Greenway"; Patent No.: US 6,229,993).

Regarding claim 1, Andrews discloses a radio communication terminal, comprising:

- a user input and output interface (Fig. 1, references 18 and 20);
- a terminal core including a main terminal PCB carrying electronic circuits with data processing means for controlling terminal functions (Fig. 2, reference 46; page 5, lines 13-16);
- a cover connector connected to the data processing means (Fig. 2, reference 52); and
- a releasable cover (Figs. 2, 6, and 8) carrying an auxiliary functional member (Figs. 2, 6, and 8, reference 18) and a terminal connector connected to the auxiliary functional member (Fig.

Art Unit: 2687

3); wherein the cover connector and terminal connector are configured to provide communicative connection for the auxiliary functional member of the cover to the data processing means of the terminal core (page 6, lines 7-11; page 7, lines 17-18),

wherein the terminal core comprises an keyboard PCB supporting a terminal keyboard (Fig. 10), connected to said the electronic circuits (Fig. 10) and wherein the cover connector is disposed on the PCB (Fig. 10).

Andrews fails to disclose a system connector, and wherein the terminal core comprises an **additional** keyboard PCB.

However, Greenway teaches a radio communication terminal comprising a terminal core including a main terminal PCB carrying electronic circuits with data processing means for controlling terminal functions (Fig. 5, reference 12), and a system connector (Fig. 5, end portion of reference 12); and wherein the terminal core comprises an **additional** keyboard PCB (Fig. 5, reference 14).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate a system connector; and an additional keyboard PCB in the terminal core of Andrews as suggested by Greenway.

One of ordinary skill in this art would have been motivated to incorporate a system connector since is known to connect to an external device; and an additional keyboard PCB in the terminal core because it would allow changes to the visual appearance of the handset by varying the keypad design since it does not form an integral part of the core of the handset (Greenway: col. 2, lines 49-53).

Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate an additional keyboard PCB, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Regarding claim 2, in the obvious combination, Andrews discloses wherein one of the cover connector and terminal connector comprises conductive connection pads (Figs. 2 and 10, reference 52), and the other of the cover connector and terminal connector comprises a biased resilient connector element (Fig. 3; page 6, lines 15-18).

Regarding claim 4, Andrews in combination with Greenway disclose the claimed invention except for wherein the biased resilient connector element is a leaf spring connector. It would have been an obvious matter of design choice to incorporate a leaf spring connector as the biased resilient connector element since the applicant has not disclosed that a leaf spring connector solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the biased resilient connector element of Andrews in combination with Greenway.

Regarding claim 5, in the obvious combination, Andrews discloses wherein the conductive connection pads are in the cover connector disposed on the terminal core (Figs. 2 and 10, reference 52).

Regarding claim 6, in the obvious combination, Andrews discloses wherein the cover comprises a shell member configured to cover a portion of a front face of the terminal core (Fig. 2, reference 44).

Regarding claim 7, in the obvious combination, Andrews discloses wherein the cover comprises a shell member configured to cover a portion of a rear face of the terminal core (Fig. 2, reference 42).

Regarding claim 8, in the obvious combination, Andrews discloses wherein the terminal core and the cover are provided with cooperating attaching means for releasable attachment cover (Fig. 2).

Regarding claim 9, Andrews discloses a terminal core having a user input and output interface, for use with a releasable cover carrying an auxiliary functional member and a terminal connector connected to the auxiliary functional member, said the terminal core comprising:

a main terminal PCB carrying electronic circuits with data processing means for controlling terminal functions (Fig. 2, reference 46; page 5, lines 13-16); and

a cover connector connected to the data processing means (Fig. 2, reference 52); wherein the cover connector and terminal connector are configured to provide a communicative connection for the auxiliary functional member of an attached cover to the data processing means of the terminal core (page 6, lines 7-11; page 7, lines 17-18),

wherein the terminal core comprises an keyboard PCB supporting a terminal keyboard (Fig. 10), connected to the electronic circuits (Fig. 10), and wherein the cover connector is disposed on the PCB (Fig. 10).

Andrews fails to disclose a system connector, and wherein the terminal core comprises an **additional** keyboard PCB.

However, Greenway teaches a terminal core comprising main terminal PCB carrying electronic circuits with data processing means for controlling terminal functions (Fig. 5,



Art Unit: 2687

reference 12), and a system connector (Fig. 5, end portion of reference 12); wherein the terminal core comprises an **additional** keyboard PCB (Fig. 5, reference 14).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate a system connector; and an additional keyboard PCB in the terminal core of Andrews as suggested by Greenway.

One of ordinary skill in this art would have been motivated to incorporate a system connector since is known to connect to an external device; and an additional keyboard PCB in the terminal core because it would allow changes to the visual appearance of the handset by varying the keypad design since it does not form an integral part of the core of the handset (Greenway: col. 2, lines 49-53).

Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate an additional keyboard PCB, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Regarding claim 10, in the obvious combination, Andrews discloses wherein the cover connector comprises conductive connection pads (Figs. 2 and 10, reference 52).

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews in combination with Greenway (hereinafter “Andrews/Greenway”) as applied to claim 2 above, and further in view of Canova et al. (hereinafter “Canova”; Patent No.: US 6,283,777).

Regarding claim 3, Andrews/Greenway disclose the radio communication terminal as recited in claim 2 (see above). Andrews/Greenway fails to disclose wherein the biased resilient connector element is a pogo-pin connector.

However, Canova discloses a radio communication terminal wherein the biased resilient connector element is a pogo-pin connector (col. 1, lines 40-48).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate a pogo-pin connector as the biased resilient connector element of Andrews/Greenway as suggested by Canova.

One of ordinary skill in this art would have been motivated to incorporate a pogo-pin connector as the biased resilient connector because they enable the accessory devices to be relatively small and portable (Canova: col. 4, lines 45-47).

Moreover, it would have been an obvious matter of design choice to incorporate a pogo-pin connector as the biased resilient connector element since the applicant has not disclosed that a pogo-pin connector solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the biased resilient connector element of Andrews in combination with Greenway.

### *Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lindholm (EP 1091540 A2), Engstrom et al. (Pub. No.: US 2003/0224831), and Kohnke (WO 03/052948) discloses a communication terminal having exchangeable parts. Kujawski (Pub. No.: US 2004/0097256) and Lee (Pub. No.: US 2003/0100338) disclose a communication terminal with a cover with integrated keypads.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

Art Unit: 2687

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MSC 12/8/05

MSC

  
12/8/05  
LESTER G. KINCAID  
SUPERVISORY PRIMARY EXAMINER